



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9074; Product Identifier 2016-NM-097-AD; Amendment 39-19213; AD 2018-05-04]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Airbus Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. This AD was prompted by reports of engine fan cowl door (FCD) losses on airplanes equipped with CFM56 engines due to operator failure to close the FCD during ground operations. This AD requires modification and re-identification, or replacement, of certain FCDs. This AD also requires installation of a placard. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9074.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9074; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. The SNPRM published in the Federal Register on September 27, 2017 (82 FR 44974) (“the SNPRM”). We preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in the Federal Register on September 26, 2016 (81 FR 65980) (“the NPRM”). The NPRM was prompted by reports of engine FCD losses on airplanes equipped with CFM56 engines due to operator failure to close the FCD during ground operations. The NPRM proposed to require modification and re-identification, or replacement, of certain FCDs. The NPRM also proposed to require installation of a placard. The SNPRM proposed to add airplanes to the applicability and expand the list of affected FCD part numbers. We are issuing this AD to prevent in-flight loss of an engine FCD and possible consequent damage to the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2016-0257, dated December 16, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-211, -212, and -214, airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. The MCAI states:

Fan Cowl Door (FCD) losses were reported on aeroplanes equipped with CFM56 engines. Investigation results confirmed that in all cases the fan cowl doors were opened prior to the flight and were not correctly re-secured. During the pre-flight inspection, it was then not detected that the FCD[s] were not properly latched.

This condition, if not detected and corrected, could lead to in-flight loss of a FCD, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

Prompted by these events, new FCD front latch and keeper assembly were developed, having a specific key necessary to unlatch the FCD. This key cannot be removed unless the FCD front latch is safely closed. The key, after removal, must be stowed in the flight deck at a specific location, as instructed in the applicable Aircraft Maintenance Manual. Applicable Flight Crew Operating Manuals have been amended accordingly. After modification, the FCD is identified with a different Part Number (P/N). Airbus issued Service Bulletin (SB) A320-71-1068 to provide the modification instructions. Consequently, EASA issued AD 2016-0069 to require modification and re-identification of [affected] FCD[s] [or replacement of affected FCDs].

After that [EASA] AD was published, FCD P/N 238-0301-509 was identified as missing in the list of affected FCD P/N[s] provided in the [EASA] AD.

For the reasons described above, this [EASA] AD retains the requirement of EASA AD 2016-0069, which is superseded, and expands the list of affected FCD P/N[s].

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9074.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the SNPRM and the FAA's response to each comment. In addition to its general agreement with the proposed requirement to

implement the new latches on the FCDs, Delta Airlines (Delta) provided the following comments on the SNPRM.

Request to Specify Which FCDs Require Modification

Delta requested that we specify which FCDs need to be modified by listing the affected FCD serial numbers in paragraphs (g)(1) and (g)(3) of the proposed AD (in the SNPRM). Delta stated that Airbus confirmed that only a specific set of serial numbers is affected.

We acknowledge that Delta provided additional information from Airbus regarding certain FCD serial numbers. However, Delta did not provide substantiation that only the FCDs with those serial numbers are subject to the identified unsafe condition. The State of Design Authority (EASA) and Airbus have determined that FCDs with certain part numbers (P/Ns), which are identified in table 1 to paragraphs (g), (h), (i), and (k) of this AD, as “Old P/N,” rather than the serial numbers that Airbus provided to Delta, are affected by the unsafe condition. If an operator can provide substantiation that certain FCDs may be exempted from the AD requirements based on having a type design which mitigates the risk and provides an adequate level of safety, they may apply for an alternative method of compliance in accordance with the procedures in paragraph (n)(1) of this AD. We have not changed this AD in this regard.

Request to Remove Requirement for Placard Installation

Delta requested that we remove the proposed requirement to install a placard at the applicable location specified in paragraph (g)(2) of the proposed AD (in the SNPRM). Delta noted that FCD keys are considered ground support equipment by Airbus and are routinely stored at ground operating stations. Delta suggested that since FCD keys are not

required to be stored on an airplane, requiring a placard where the keys may or may not be located creates an undue regulatory burden on operators. Delta pointed out that if the placard was missing from an airplane, that airplane would be out of compliance and could not be operated. Delta added that Airbus has indicated that the placard and key locations are not safety related.

We partially agree with the commenter's request. We agree that the proposed placard requirements were too stringent. However, we have determined that some means of advising the flight and maintenance crews of the location of the FCD keys is necessary. We have revised paragraph (g)(2) of this AD to allow flights, for a time period not to exceed 10 days, when one or both engine FCD keys or the placard are damaged or missing. We have also revised paragraph (g)(2) of this AD to allow an alternate key stowage location in the flight deck and installation of a placard for identification of the stowage location, provided the keys can be consistently retrieved from that flight deck location.

Request to Remove Reference to Certain Instructions for Installing Replacement FCDs

Delta requested that the alternative actions in paragraphs (h) and (l)(2) of the proposed AD (in the SNPRM) to install replacement FCDs using instructions "... approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus's EASA Design Organization Approval (DOA)" be removed from the proposed AD (in the SNPRM). Delta claimed that the safety issue being addressed is the latching of the FCDs, not their installation. Delta noted that the SNPRM would allow on-wing work on FCDs that were installed as specified in the airplane maintenance manual (AMM), and suggested that same method should be acceptable for installing a new or

modified FCD. Delta requested that either the requirement to use “approved” instructions be removed or the term “approved” be changed to allow a method “accepted” by the FAA; EASA; or Airbus’s EASA DOA, which would allow operators to use procedures in the existing AMM. Delta requested that if this change is not made, the “Costs of Compliance” section of this AD be updated to reflect the \$3,555 Airbus would charge Delta to approve the existing AMM procedure for the actions specified in paragraphs (h) and (l)(2) of the proposed AD (in the SNPRM).

We disagree with the commenter’s request. Installation of a new part using procedures that are not approved in the specified manner might result in an inadvertent introduction of an unsafe condition. We have coordinated with Airbus and EASA and agreed that the installation must be done in accordance with the approved methods specified in paragraphs (h) and (l)(2) of this AD. In addition, we recognize that in accomplishing the requirements of any AD, operators might incur “incidental” costs in addition to the “direct” costs that are reflected in the cost analysis presented in the AD. However, the cost analysis in ADs typically does not include incidental costs. We have not changed this AD in this regard.

Change to Applicability

In paragraph (c)(2) of the proposed AD (in the SNPRM), we inadvertently included Airbus Model A320-216 airplanes. We did not intend to include Model A320-216 airplanes in the applicability of this AD because the MCAI was already added to the required airworthiness action list (RAAL) for Model A320-216 airplanes. We have removed Model A320-216 airplanes from the applicability of this final rule.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously, and minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the SNPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A320-71-1068, Revision 01, dated April 28, 2016. This service information describes procedures for modifying the left-hand and right-hand FCDs on engines 1 and 2; installing a placard; and re-identifying both the left-hand and right-hand FCDs with a new part number. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 400 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per	Cost on U.S.
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			product	operators
Modification, placard installation, and re-identification (or replacement) of FCD	Up to 11 work-hours X \$85 per hour = \$935	\$9,730	\$10,665 (for two engines)	\$4,266,000

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
3. Will not affect intrastate aviation in Alaska, and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2018-05-04 Airbus: Amendment 39-19213; Docket No. FAA-2016-9074; Product

Identifier 2016-NM-097-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Airbus airplanes, certificated in any category, identified in paragraphs (c)(1) through (c)(4) of this AD, all manufacturer serial numbers.

(1) Airbus Model A318-111 and -112 airplanes.

(2) Airbus Model A319-111, -112, -113, -114, and -115 airplanes.

(3) Airbus Model A320-211, -212, and -214 airplanes.

(4) Airbus Model A321-111, -112, -211, -212, and -213 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 71, Powerplant.

(e) Reason

This AD was prompted by reports of engine fan cowl door (FCD) losses on airplanes equipped with CFM56 engines due to operator failure to close the FCD during ground operations. We are issuing this AD to prevent in-flight loss of an engine FCD and possible consequent damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Modification of Affected FCDs

Within 35 months after the effective date of this AD, accomplish concurrently the actions in paragraphs (g)(1), (g)(2), and (g)(3) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-71-1068, Revision 01, dated April 28, 2016.

(1) Modify the left-hand and right-hand FCDs on engines 1 and 2 that have an old part number ("Old P/N"), as applicable, as specified in table 1 to paragraphs (g), (h), (i), and (k) of this AD.

(2) Install a placard on the box located at the bottom of the 120-volt unit (120 VU) panel, or at the bottom of the coat stowage, as applicable to airplane configuration. Revenue flights with one or both FCD keys missing from the stowage location in the flight deck, or the placard missing or damaged, are permitted for a period not to exceed 10 days. An alternate key stowage location in the flight deck and installation of a placard for identification of the stowage location is permitted in accordance with the operator's FAA accepted maintenance/inspection program, provided the keys can be consistently retrieved from that flight deck location when needed.

(3) Re-identify the modified left-hand and right-hand FCDs with the new part number ("New P/N"), as applicable, as specified in table 1 to paragraphs (g), (h), (i), and (k) of this AD.

Table 1 to Paragraphs (g), (h), (i), and (k) of this AD – Fan Cowl Door Part Number (P/N) Change

Door Position	Old P/N	New P/N
Left-hand side – CFM56-5A engines	238-0301-501	238M0301-501
	238-0301-503	238M0301-503
	238-0301-505	238M0301-505
	238-0301-507	238M0301-507
	238-0301-509	238M0301-509
	238-0301-511	238M0301-511
	238-0301-513	238M0301-513
	238-0301-515	238M0301-515
	238-0301-517	238M0301-517
	238-0301-519	238M0301-519
	238-0301-521	238M0301-521
	238-0301-523	238M0301-523
	238-0301-525	238M0301-525
	238-0301-527	238M0301-527
	238-0301-529	238-0301-533
	238-0301-531	238-0301-535
Right-hand side – CFM56-5A engines	238-0302-501	238M0302-501
	238-0302-503	238M0302-503
	238-0302-505	238M0302-505
	238-0302-509	238M0302-509
	238-0302-511	238M0302-511
	238-0302-513	238M0302-513
	238-0302-515	238M0302-515
	238-0302-517	238M0302-517
	238-0302-519	238M0302-519
	238-0302-521	238M0302-521
	238-0302-523	238M0302-523
	238-0302-525	238M0302-525
	238-0302-527	238M0302-527
	238-0302-529	238M0302-529
	238-0302-531	238M0302-531
	238-0302-533	238M0302-533
	238-0302-535	238M0302-535
	238-0302-537	238M0302-537
	238-0302-539	238-0302-547
	238-0302-541	238-0302-549
	238-0302-543	238-0302-551
	238-0302-545	238-0302-553

Door Position	Old P/N	New P/N
Left-hand side – CFM56-5B engines	642-3001-503	642M3001-503
	642-3001-505	642M3001-505
	642-3001-507	642-3001-511
	642-3001-509	642-3001-513
Right-hand side – CFM56-5B engines	642-3002-503	642M3002-503
	642-3002-505	642M3002-505
	642-3002-507	642M3002-507
	642-3002-509	642M3002-509
	642-3002-511	642-3002-519
	642-3002-513	642-3002-521
	642-3002-515	642-3002-523
	642-3002-517	642-3002-525

(h) Optional Replacement of Affected FCDs with New Door Design

Replacing the FCDs having a P/N listed as “Old P/N” in table 1 to paragraphs (g), (h), (i), and (k) of this AD with the FCDs having the corresponding P/Ns listed as “New P/N” in table 1 to paragraphs (g), (h), (i), and (k) of this AD is acceptable for compliance with the requirements of paragraphs (g)(1) and (g)(3) of this AD. The replacement must be done in accordance with instructions approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(i) Compliance Information for Airplanes on Which Airbus Modification 157517 is Embodied

Accomplishment of Airbus modification 157517 on an airplane in production is acceptable for compliance with the requirements of paragraphs (g)(1) and (g)(3) of this AD, provided that no FCD having a part number identified as “Old P/N” in table 1 to paragraphs (g), (h), (i), and (k) of this AD is installed on that airplane.

(j) Compliance Information for Airplanes on Which Airbus Modification 157519 or Modification 157521 is Embodied

Accomplishment of Airbus modification 157519 or modification 157521 on an airplane in production is acceptable for compliance with the requirements of paragraph (g)(2) of this AD.

(k) Parts Installation Prohibition

(1) For any airplane with any FCD installed having a P/N identified as “Old P/N” in table 1 to paragraphs (g), (h), (i), and (k) of this AD as of the effective date of this AD: No person may install on an airplane a part number identified as “Old P/N” in table 1 to paragraphs (g), (h), (i), and (k) of this AD after accomplishing the requirements of paragraph (g) of this AD on that airplane.

(2) For any airplane with only FCDs installed having P/Ns that are identified as “New P/N” in table 1 to paragraphs (g), (h), (i), and (k) of this AD as of the effective date of this AD: No person may install on any airplane a part number identified as “Old P/N” in table 1 to paragraphs (g), (h), (i), and (k) of this AD as of the effective date of this AD.

(l) Installation of Approved Parts

Installation on an airplane of a right-hand or left-hand FCD having a part number approved after the effective date of this AD is acceptable for compliance with the requirements of paragraphs (g)(1) and (g)(3) of this AD for that airplane only, provided the conditions specified in paragraphs (l)(1) and (l)(2) of this AD are met.

(1) The part number must be approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(2) The FCD installation must be accomplished in accordance with airplane modification instructions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(m) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-71-1068, Revision 00, dated December 18, 2015.

(n) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (o)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or

EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(o) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016-0257, dated December 16, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9074.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (p)(3) and (p)(4) of this AD.

(p) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Airbus Service Bulletin A320-71-1068, Revision 01, dated April 28, 2016.

(ii) Reserved.

(3) For service information identified in this AD, contact Airbus, Airworthiness Office – ELAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone

+33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com;

Internet <http://www.airbus.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 22, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2018-04265 Filed: 3/6/2018 8:45 am; Publication Date: 3/7/2018]